Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 2

## AMENDMENTS TO THE CLAIMS:

The following list of claims will replace all prior versions, and listings, of claims. Please amend the claims as follows:

1.-16. (Cancelled).

17. (Previously presented) A method for treating shock comprising administering to a subject a therapeutically effective amount of a peptide of Formula II

$$R_1$$
  $N$   $CH_2$   $C$   $Z_1$   $Arg$   $Z_3$   $Z_4$   $Z_5$  (II)

wherein:

R<sub>1</sub> and R<sub>2</sub> being equal or different denote hydrogen, a saturated or unsaturated hydrocarbon comprising from 1 to 10 carbon atoms;

 $Z_1$  denotes a histidine residue;

Arg denotes an arginine residue;

 $Z_3$  denotes a proline or valine residue;

Z<sub>4</sub> denotes a leucine or valine residue; and

 $Z_5$  denotes a peptide derived from the Bbeta chain of the fibrin, which peptide has the biological property of matching the inducible VE-cadherin binding motif on the B $\beta$ -chain (i.e., B $\beta_{15-42}$ ) of human fibrin comprising:

Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-Ile-Ser-Gly-Gly-Tyr-Arg (SEQ ID NO: 8).

18. (Previously presented) The method according to claim 17, wherein the saturated or unsaturated hydrocarbon in the meaning of  $R_1$  and  $R_2$  comprises 1 to 3 carbon atoms.

Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 3

- 19. (Previously presented) The method according to claim 17, wherein:
  - Z<sub>3</sub> denotes a proline residue; and
  - Z<sub>4</sub> denotes a leucine residue.
- 20. (Previously presented) The method according to claim 18, wherein:
  - Z<sub>3</sub> denotes a proline residue; and
  - $Z_4$  denotes a leucine residue.
- 21. (Previously presented) A method for treating shock comprising administering to a subject a therapeutically effective amount of a peptide having the N-terminal sequence:

Gly-His-Arg-Pro-Leu-Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Pro-

Ile-Ser-Gly-Gly-Gly-Tyr-Arg (SEQ ID NO: 3);

which peptide has the biological property of matching the inducible VE-cadherin binding motif on the B $\beta$ -chain (i.e., B $\beta$ <sub>15-42</sub>) of human fibrin.

- 22. (Previously presented) The method according to claim 21, wherein the peptide is of formula: Gly-His-Arg-Pro-Leu-Asp-Lys-Lys-Arg-Glu-Glu-Ala-Pro-Ser-Leu-Arg-Pro-Ala-Pro-Pro-Ile-Ser-Gly-Gly-Gly-Tyr-Arg (SEQ ID NO: 3).
- 23. (Previously presented) The method of claim 17, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory failure and organ failure after organ injury.
- 24. (Currently amended) The method of claim 18, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory failure and organ failure after organ injurys injury.

Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 4

25. (Previously presented) The method of claim 19, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory

failure and organ failure after organ injury.

26. (Previously presented) The method of claim 20, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory failure and organ failure after organ injury.

27. (Previously presented) The method of claim 21, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory failure and organ failure after organ injury.

28. (Previously presented) The method of claim 22, wherein the shock is associated with one or more from the group comprising bacterial toxins, disseminated intravascular coagulopathy, necrotizing fasciitis, hemorrhagic shock following viral infection, acute hemorrhagic respiratory failure and organ failure after organ injury.

- 29. (Previously presented) The method of claim 23, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.
- 30. (Previously presented) The method of claim 23, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.
- 31. (Previously presented) The method of claim 23, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.

Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 5

- 32. (Previously presented) The method of claim 23, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.
- 33. (Previously presented) The method of claim 17, wherein the shock is associated with acute lung injury.
- 34. (Previously presented) The method of claim 17, wherein the shock is associated with dengue fever.
- 35. (Previously presented) The method of claim 24, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.
- 36. (Previously presented) The method of claim 24, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.
- 37. (Previously presented) The method of claim 24, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.
- 38. (Previously presented) The method of claim 24, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.
- 39. (Previously presented) The method of claim 18, wherein the shock is associated with acute lung injury.

Amendment and Response dated November 10, 2010 Reply to Office Action of September 17, 2010 Docket No.: 1848-7 PCT/US/RCE

Page 6

40. (Previously presented) The method of claim 18, wherein the shock is associated with dengue fever.

- 41. (Previously presented) The method of claim 25, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.
- 42. (Previously presented) The method of claim 25, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.
- 43. (Previously presented) The method of claim 25, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.
- 44. (Previously presented) The method of claim 25, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.
- 45. (Previously presented) The method of claim 19, wherein the shock is associated with acute lung injury.
- 46. (Previously presented) The method of claim 19, wherein the shock is associated with dengue fever.
- 47. (Previously presented) The method of claim 26, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.
- 48. (Previously presented) The method of claim 26, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.

Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 7

49. (Previously presented) The method of claim 26, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.

50. (Previously presented) The method of claim 26, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.

51. (Previously presented) The method of claim 20, wherein the shock is associated with acute lung injury.

52. (Previously presented) The method of claim 20, wherein the shock is associated with dengue fever.

53. (Previously presented) The method of claim 27, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.

54. (Previously presented) The method of claim 27, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.

55. (Previously presented) The method of claim 27, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.

56. (Previously presented) The method of claim 27, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.

Amendment and Response dated November 10, 2010

Reply to Office Action of September 17, 2010

Docket No.: 1848-7 PCT/US/RCE

Page 8

57. (Previously presented) The method of claim 21, wherein the shock is associated with acute lung injury.

58. (Previously presented) The method of claim 21, wherein the shock is associated with dengue fever.

59. (Previously presented) The method of claim 28, wherein hemorrhagic shock following viral infection is caused by filovirus, arenaviridae, bunyaviridae or flavivirus.

60. (Previously presented) The method of claim 28, wherein acute hemorrhagic respiratory failure is caused by an infectious agent.

61. (Previously presented) The method of claim 28, wherein acute hemorrhagic respiratory failure is caused by an autoimmune disease.

62. (Previously presented) The method of claim 28, wherein organ failure after organ injury occurs through myocardial infarction, vascular surgery, clamping of organs, hemorrhagic shock, lung infarction, liver infarction, gut infarction, surgical procedures and stroke, or organ dysfunction of grafted organs.

63. (Previously presented) The method of claim 22, wherein the shock is associated with acute lung injury.

64. (Previously presented) The method of claim 22, wherein the shock is associated with dengue fever.